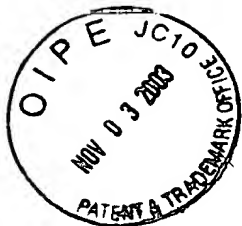


## Replacement Sheet

### Figure 1A

Identity to SeqID No:1 is indicated by a dot, and a dash ("-") indicates a missing nucleotide.

	*	20	*	40	*	
Seqid1	:	ATGAATACCAAACTGACAAAAATCATTTCGGTCTCTTTGTCGCAACCGC	:	50		
Seqid3	:	.....	:	50		
Seqid5	:	.....	:	50		
		60	*	80	*	100
Seqid1	:	CGCCTTTCAGACAGCATCTGCAGGAAACATTACAGACATCAAAGTTTCCT	:	100		
Seqid3	:	.....	:	100		
Seqid5	:	.....G.....	:	100		
	*	120	*	140	*	
Seqid1	:	CCCTGCCCAACAAACAGAAAATCGTCAAAGTCAGCTTTGACAAAGAGATT	:	150		
Seqid3	:	.....	:	150		
Seqid5	:	.....	:	150		
		160	*	180	*	200
Seqid1	:	GTCAACCCGACCGGCTTCGTAACCTCCTCACC GGCCCGCATCGCCTTGGC	:	200		
Seqid3	:	.....	:	200		
Seqid5	:	.....	:	200		
	*	220	*	240	*	
Seqid1	:	CTTTGAACAAACCGGCATTTCCATGGATCAACAGGTACTCGAATATGCCG	:	250		
Seqid3	:	.....	:	250		
Seqid5	:	.....	:	250		
		260	*	280	*	300
Seqid1	:	ATCCTCTGTTGAGCAAAATCAGTGCCGCACAAAACAGCAGCCGTGCGCGT	:	300		
Seqid3	:	.....	:	300		
Seqid5	:	.....	:	300		



## Replacement Sheet

### Figure 1B

320 340

Seqid1 : CTGGTTCTGAATCTGAACAAACCGGGCCAATACAATACCGAAGTACGCGG : 350

Seqid3 : ..... : 350

Seqid5 : ..... : 350

360 380 400

Seqid1 : GAACAAAGTTTGGATATTCATTAACGAATCGGACGATACCGTGTCGCCCC : 400

Seqid3 : ..... : 400

Seqid5 : ..... : 400

420 440

Seqid1 : CCGCAGCCCCCGCCGTAAAAGCCGCGCCTGCCGCACCGGCAAAACAACAG : 450

Seqid3 : ..... : 450

Seqid5 : ..... : 450

460 480 500

Seqid1 : GGCTGCCGCACCGTCTACCAAGTCCGCAGTATCCGTATCCAAACCCTTTA : 500

Seqid3 : .-..... : 499

Seqid5 : .-.....G..... : 499

520 540

Seqid1 : CCCC GGCAAAACAACAG-CTGCCGCACCGTTTACCGAGTCCGTAGTATCC : 549

Seqid3 : .....G..... : 549

Seqid5 : .....G..... : 549

560 580 600

Seqid1 : GTATCCGCACCGTTCAGCCCCGGCAAAACAACAGGCGGCGGCATCAGCAA : 599

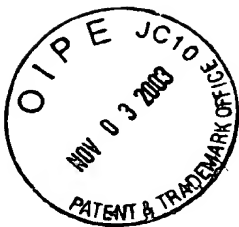
Seqid3 : ..... : 599

Seqid5 : ..... : 599

620 640

Seqid1 : ACAACAGACGGCAGCACCAGCAAAACAACAGACGGCAGCACCAGCAAAAC : 649

Seqid3 : ..... : 649



## Replacement Sheet

### Figure 1C

Seqid5 : .....G.....G..... : 649

660 \* 680 \* 700  
Seqid1 : AACAGGCGGCAGCACCAGCAAAACAAACCAATATCGATTTCGCAAAGAC : 699  
Seqid3 : ..... : 699  
Seqid5 : ..... : 699

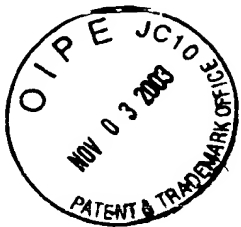
\* 720 \* 740 \*  
Seqid1 : GGCAAAAATGCCGGCATTATCGAATTGGCTGCATTGGGCTTTGCCGGGCA : 749  
Seqid3 : ..... : 749  
Seqid5 : ..... : 749

760 \* 780 \* 800  
Seqid1 : GCGCGACATCAGCCAACAGCACGACCACATCATCGTTACGCTGAAAAACC : 799  
Seqid3 : ..... : 799  
Seqid5 : ..... : 799

\* 820 \* 840 \*  
Seqid1 : ATACCCTGCCGACCAGCTCCAACGCAGTTTGGATGTGGCAGACTTTAAAC : 849  
Seqid3 : ..... : 849  
Seqid5 : ..... : 849

860 \* 880 \* 900  
Seqid1 : ACACCGGTTCAAAAGGTTACGCTGAAACGCCTCAATAACGACACCCAGCT : 899  
Seqid3 : ..... : 899  
Seqid5 : ..... : 899

\* 920 \* 940 \*  
Seqid1 : GATTATCACAACAGCCGGCAACTGGGAACCTCGTCAACAAATCCGCCGCGC : 949  
Seqid3 : ..... : 949  
Seqid5 : ..... : 949



## Replacement Sheet

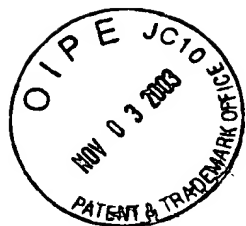
### Figure 1D

	960	*	980	*	1000	
Seqid1	:	CCGGATACTTTACCTTCCAAGTCCTGCCGAAAAAACAAACCTCGAGTCA	:	999		
Seqid3	:	.....	:	999		
Seqid5	:	.....	:	999		
		*	1020	*	1040	*
Seqid1	:	GGCGGCGTGAACAATGCGCCCAAAACCTTCACAGGCCGAAAATCTCCCT	:	1049		
Seqid3	:	.....	:	1049		
Seqid5	:	.....	:	1049		
		1060	*	1080	*	1100
Seqid1	:	TGACTTCCAAGATGTGCGAAATCCGCACCATCCTGCAGATTTTGGCAAAAG	:	1099		
Seqid3	:	.....	:	1099		
Seqid5	:	.....	:	1099		
		*	1120	*	1140	*
Seqid1	:	AATCCGGGATGAACATTGTTGCCAGCGACTCCGTCAACGGCAAAATGACC	:	1149		
Seqid3	:	.....	:	1149		
Seqid5	:	.....A.....	:	1149		
		1160	*	1180	*	1200
Seqid1	:	CTCTCCCTCAAAGACGTACCTTGGGATCAGGCTTTGGATTTGGTTATGCA	:	1199		
Seqid3	:	.....	:	1199		
Seqid5	:	.....G..T..G.....	:	1199		
		*	1220	*	1240	*
Seqid1	:	GGCACGCAACCTCGATATGCGCCAACAAGGGAACATCGTCAACATCGCGC	:	1249		
Seqid3	:	.....	:	1249		
Seqid5	:	...G.....G.....T.....	:	1249		
		1260	*	1280	*	1300
Seqid1	:	CCCGCGACGAGCTGCTTGCCAAAGACAAAGCCTTCTTACAGGCGGAAAAA	:	1299		
Seqid3	:	.....	:	1299		
Seqid5	:	.....C.....A.....	:	1299		

```

          *          1620          *          1640          *
Seqid1  : GGCGTTAAATTCGGCGCGACAGGCAAGAAAAAGCTGAAAAATGATACAAG : 1649
Seqid3  : ..... : 1649

```



## Replacement Sheet

### Figure 1F

Seqid5 : ..... : 1649

1660 \* 1680 \* 1700  
Seqid1 : CGCATTTCGGCTGGGGGGTAAACTCCGGCTTCGGCGGCGACGATAAATGGG : 1699  
Seqid3 : ..... : 1699  
Seqid5 : ..... : 1699

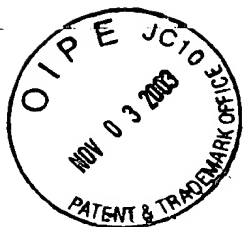
\* 1720 \* 1740 \*  
Seqid1 : GGGCCGAAACCAAATCAACCTGCCGATTACCGCTGCCGCAAACAGCATT : 1749  
Seqid3 : ..... : 1749  
Seqid5 : ..... : 1749

1760 \* 1780 \* 1800  
Seqid1 : TCGCTGGTGC GCGCGATTTCTCCGGTGCCCTGAATTTGGAATTGTCCGC : 1799  
Seqid3 : ..... : 1799  
Seqid5 : ..... : 1799

\* 1820 \* 1840 \*  
Seqid1 : ATCCGAATCGCTTTCAAAAACCAAAACGCTTGCCAATCCGCGCGTGCTGA : 1849  
Seqid3 : ..... : 1849  
Seqid5 : ..... : 1849

1860 \* 1880 \* 1900  
Seqid1 : CCCAAAACCGCAAAGAGGCCAAAATCGAATCCGGTTACGAAATTCCTTTC : 1899  
Seqid3 : ..... : 1899  
Seqid5 : ..... : 1899

\* 1920 \* 1940 \*  
Seqid1 : ACCGTAACCTCAATCGCGAACGGCGGCAGCAGCACGAACACGGAACCTCAA : 1949  
Seqid3 : ..... : 1949  
Seqid5 : ..... : 1949



# Replacement Sheet

## Figure 1G

	1960	*	1980	*	2000	
Seqid1	:		AAAAGCCGTCTTG	GGGCTGACCGTTACGCCGAACATCACGCCCCGACGGCC	:	1999
Seqid3	:		.....		:	1999
Seqid5	:		.....		:	1999

	*	2020	*	2040	*	
Seqid1	:		AAATCATTATGACCGTCAAAATCAACAAGGACTCGCCTGCGCAATGTGCC	:		2049
Seqid3	:		.....	:		2049
Seqid5	:		.....	:		2049

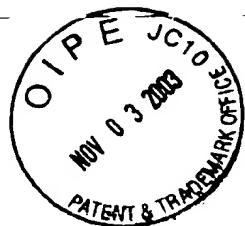
	2060	*	2080	*	2100	
Seqid1	:		TCCGGTAATCAGACGATCCTGTGTATTTGACCAAAAACCTGAATACGCA	:		2099
Seqid3	:		.....	:		2099
Seqid5	:		.....	:		2099

	*	2120	*	2140	*	
Seqid1	:		GGCTATGGTTGAAAACGGCGGCACATTGATTGTCGGCGGTATTTATGAAG	:		2149
Seqid3	:		.....	:		2149
Seqid5	:		.....	:		2149

	2160	*	2180	*	2200	
Seqid1	:		AAGACAACGGCAATACGCTGACCAAAAGTCCCCCTGTTGGGCGACATCCCC	:		2199
Seqid3	:		.....	:		2199
Seqid5	:		.....	:		2199

	*	2220	*	2240	*	
Seqid1	:		GTTATCGGCAACCTCTTTAAAAACACGCGGGAAAAAACCGACCGCCGCGA	:		2249
Seqid3	:		.....	:		2249
Seqid5	:		.....	:		2249

	2260	*	2280	*	2300	
Seqid1	:		ACTGCTGATTTTCATTACCCCGAGGATTATGGGTACGGCCGGCAACAGCC	:		2299
Seqid3	:		.....	:		2299
Seqid5	:		.....	:		2299



Replacement Sheet

**Figure 1H**

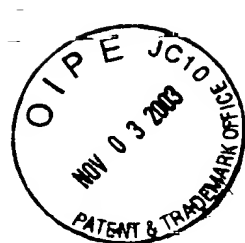
\*

Seqid1 : TCGGCTATTGA : 2310

Seqid3 : ..... : 2310

Seqid5 : ..... : 2310





Replacement Sheet

**Figure 2A**

**Identity to SeqID No:2 is indicated by a dot.**

```
          *           20           *           40           *
Seqid2 : MNTKLTKIISGLFVATAAFQTASAGNITDIKVSSLPNKQKIVKVSFDKEI : 50
Seqid4 : ..... : 50
Seqid6 : ..... : 50
```

```
          60           *           80           *           100
Seqid2 : VNPTGFVTSSPARIALDFEQTGISMDDQVLEYADPLLSKISAAQNSSRAR : 100
Seqid4 : ..... : 100
Seqid6 : ..... : 100
```

```
          *           120           *           140           *
Seqid2 : LVLNLNKPQGQYNTEVRGNKVWIFINESDDTVSAPARPAVKAAPAAPAKQQ : 150
Seqid4 : ..... : 150
Seqid6 : ..... : 150
```

```
          160           *           180           *           200
Seqid2 : GCRTVYQVRSIRIQTLYPGKTTAAAPFTESVSVSAPFSPAKQQAASAK : 200
Seqid4 : AAPSTKSAVSVSKPFT.A.QQ..... : 200
Seqid6 : AAPSTKSAVSVSEPFT.A.QQ..... : 200
```

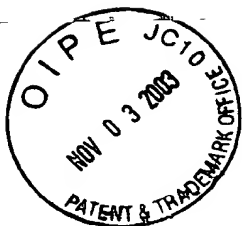
```
          *           220           *           240           *
Seqid2 : QQTAAPAKQQTAAPAKQQAAPAKQTNIDFRKDGKNAGIIELAALGFAGQ : 250
Seqid4 : ..... : 250
Seqid6 : ..A.....A..... : 250
```

```
          260           *           280           *           300
Seqid2 : PDISQQHDHIIIVTLKNHTLPTTLQRSILDVADFKTPVQKVTLKRLNNDTQL : 300
Seqid4 : ..... : 300
Seqid6 : ..... : 300
```

```

          *           620           *           640           *
Seqid2 : SESLSKTKTLANPRVLTQNRKEAKIESGYEIPFTVTTSIANGGSSTNTELK : 650

```



Replacement Sheet

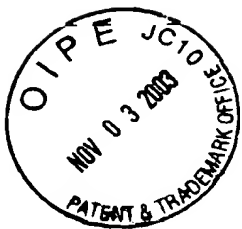
**Figure 2C**

Seqid4 : ..... : 650  
Seqid6 : ..... : 650

660 \* 680 \* 700  
Seqid2 : KAVLGLTVTPNITPDGQIIMTVKINKDSPAQCASGNQTILCISTKNLNTQ : 700  
Seqid4 : ..... : 700  
Seqid6 : ..... : 700

\* 720 \* 740 \*  
Seqid2 : AMVENGGTLIVGGIYEEDNGNTLTKVPLLGDIPVIGNLKFTRGKKTDRRE : 750  
Seqid4 : ..... : 750  
Seqid6 : ..... : 750

760  
Seqid2 : LLIFITPRIMGTAGNSLRY : 769  
Seqid4 : ..... : 769  
Seqid6 : ..... : 769

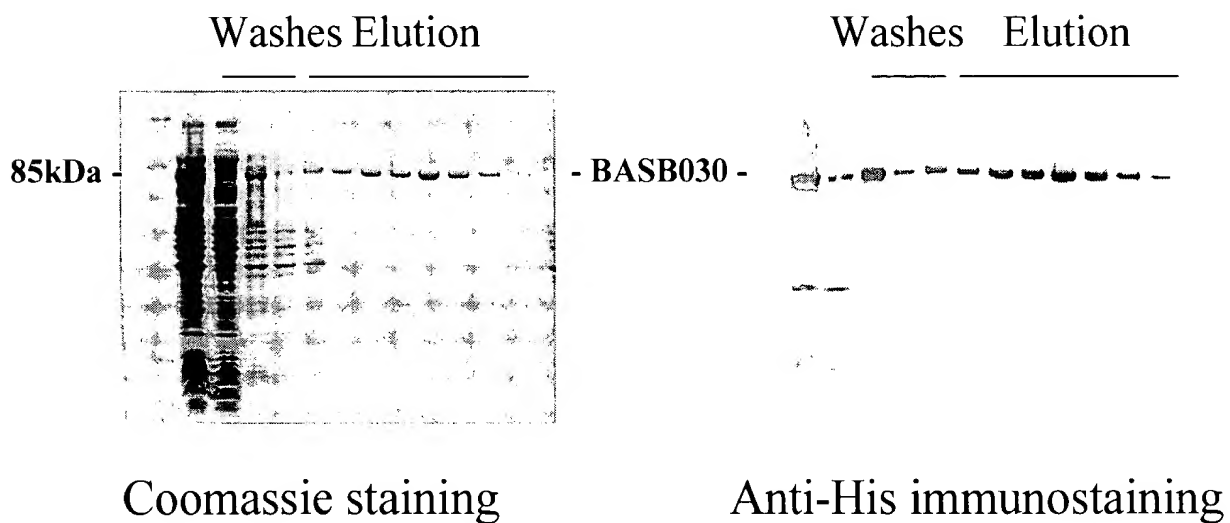


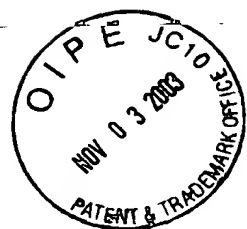
Replacement Sheet

**Figure 3**

**Expression and purification of recombinant BASB030 in *E. coli*.**

Substantially pure (more than 80%) BASB030 protein fractions were obtained on a 4-20% gradient polyacrylamide gel (NOVEX) under SDS-PAGE conditions in parallel to a protein molecular weight marker. Gels were either stained with Coomassie Blue R250 or analyzed by western blot using an anti-(His5) monoclonal antibody.

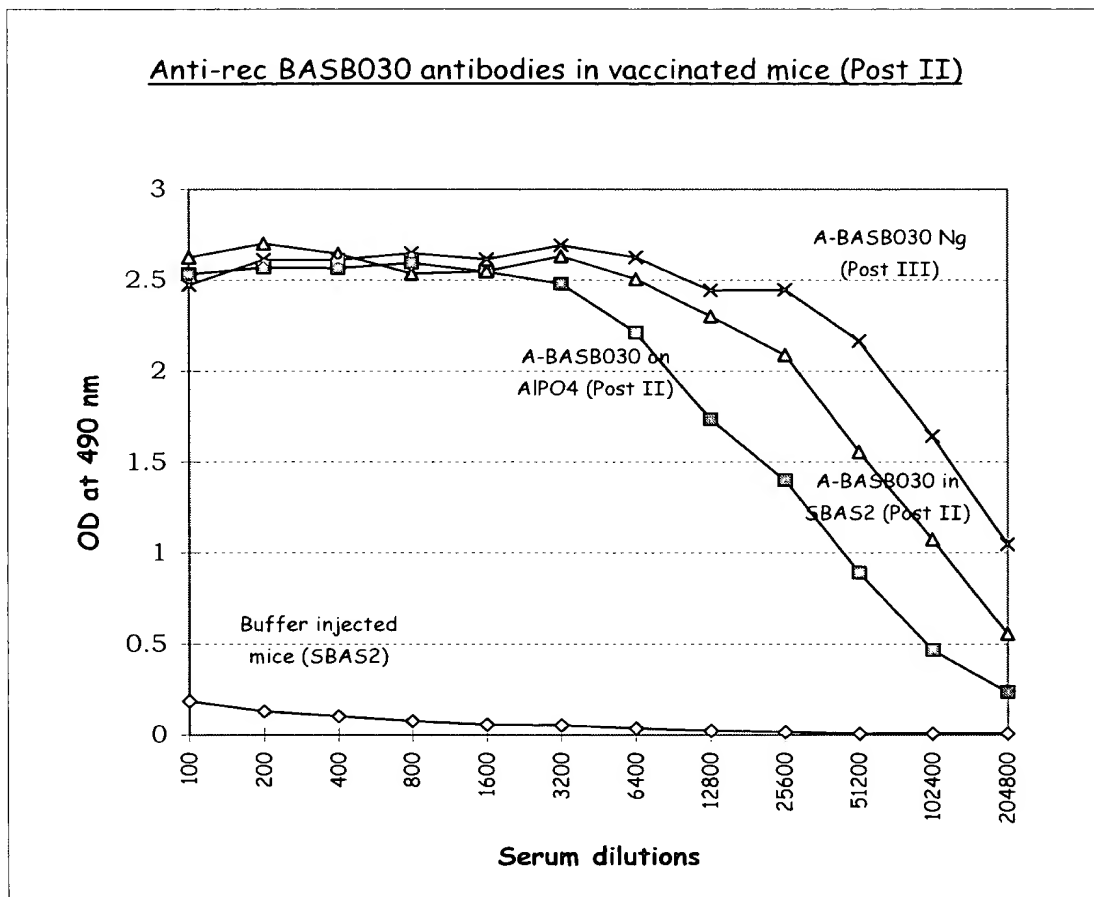


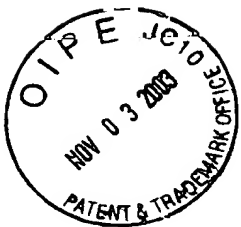


Replacement Sheet

**Figure 4**

**Immunogenicity of the native BASB030 polypeptide. Analysis of the anti-native BASB030 polypeptide on recombinant BASB030 by Elisa.**

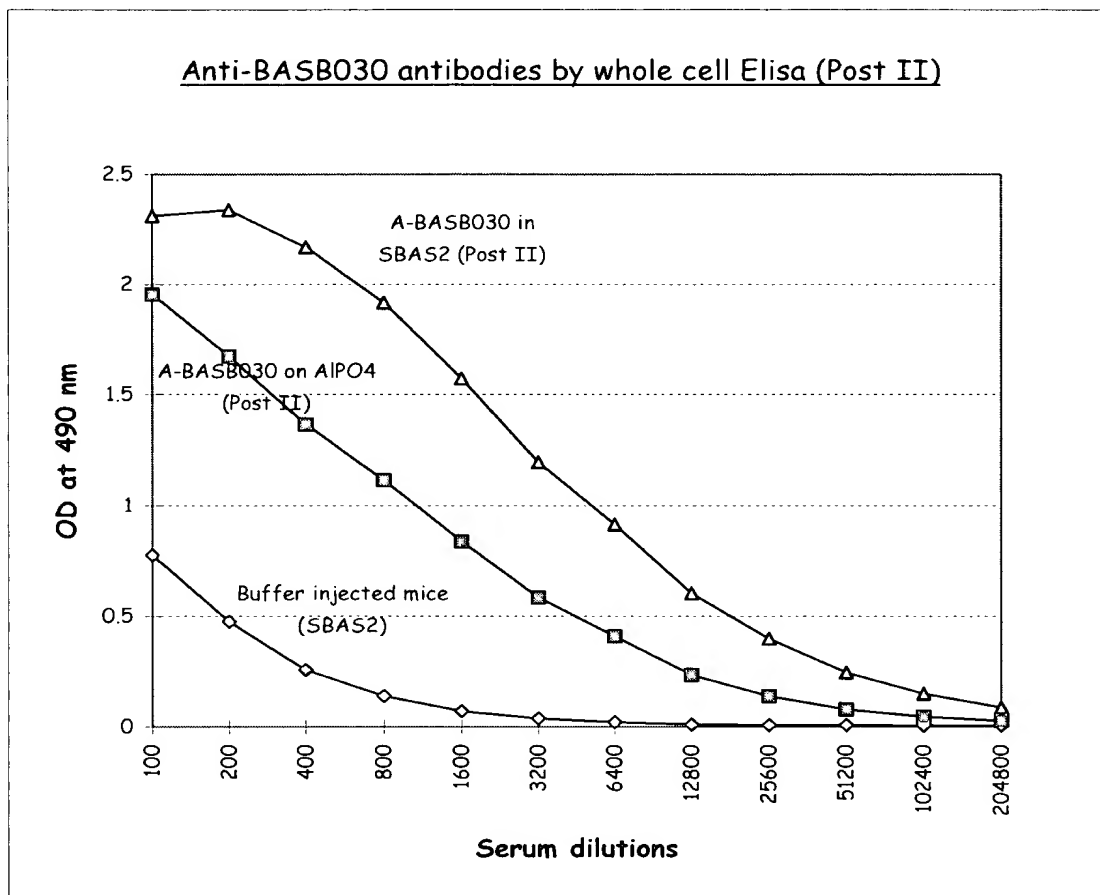


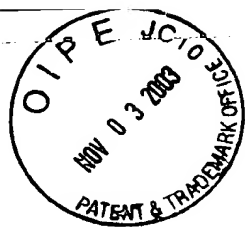


Replacement Sheet

**Figure 5**

**Immunogenicity of the native BASB030 polypeptide. Analysis of the anti-native BASB030 polypeptide response on whole cells by Elisa.**

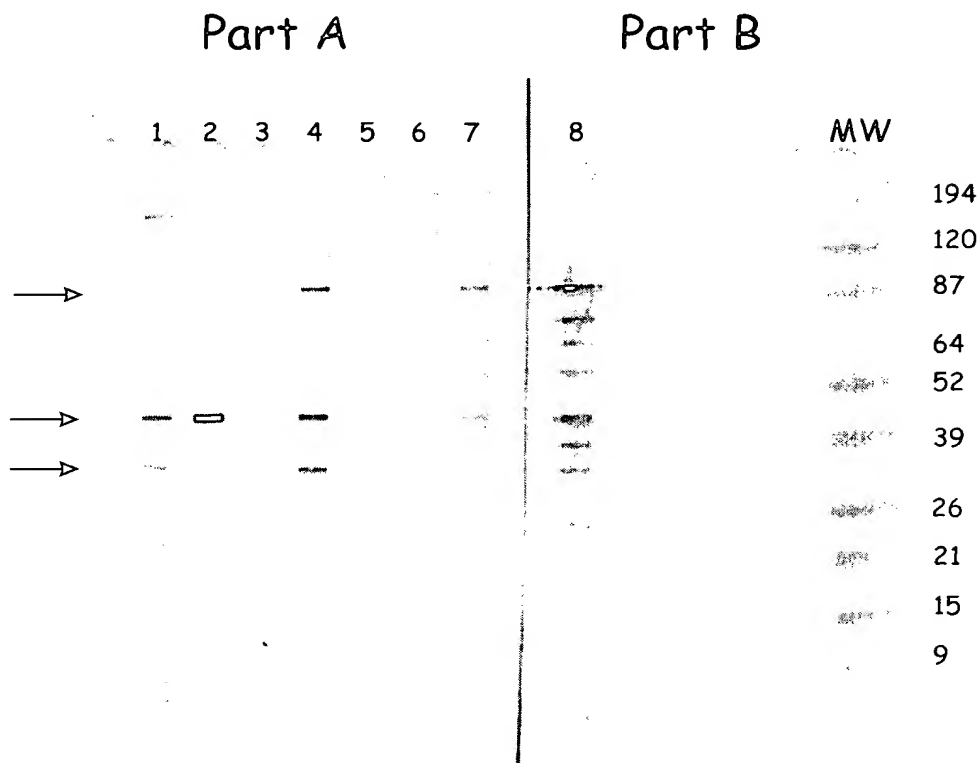




Replacement Sheet

**Figure 6**

**Anti-BASB030 antibodies in human convalescent sera (part A) and in immunized mice (part B) by western-blotting using native BASB030 into the gel.**

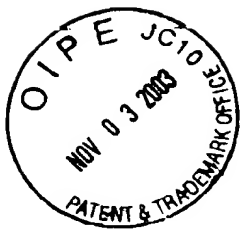


Lanes :  
1 : convalescent serum n° 262068  
2 : convalescent serum n° 261732  
3 : convalescent serum n° 262117  
4 : convalescent serum n° 261659  
5 : convalescent serum n° 261469  
6 : convalescent serum n° 261979  
7 : convalescent serum n° 261324  
8 : pool of mice sera imunized with the homolog BASB030 protein from Neisseria gonorrhoeae.

Lanes :

- 1 : convalescent serum n° 262068
- 2 : convalescent serum n° 261732
- 3 : convalescent serum n° 262117
- 4 : convalescent serum n° 261659
- 5 : convalescent serum n° 261469
- 6 : convalescent serum n° 261979
- 7 : convalescent serum n° 261324
- 8 : pool of mice sera imunized with the homolog BASB030 protein from *Neisseria gonorrhoeae*.





Replacement Sheet

**Figure 8**

**Protective effect of the anti-BASB030 antibodies in the passive protection model**

